

SECTION 20

PLUMBING FIXTURES AND ACCESSORIES

1	<u>ITEM</u>	<u>PAGE</u>
2	20.1 REFERENCES	2
3	20.2 INTRODUCTION	2
4	20.3 GENERAL	2
5	20.4 WATER CLOSETS.....	3
6	20.5 EYE WASH CENTERS.....	4
7	20.6 LAVATORIES.....	4
8	20.6.1 PASSENGER AREAS.....	4
9	20.6.2 CREW AREAS.....	5
10	20.7 URINALS	5
11	20.8 SHOWER STALLS.....	6
12	20.9 TOILET STALL PARTITIONS.....	6
13	20.10 BABY CHANGING STATION.....	7
14	20.11 SHARPS DISPOSAL CONTAINERS.....	7
15	20.12 SERVICE SINKS AND SERVICE CONNECTIONS.....	8
16	20.13 DAY ROOM / SHELTER SINKS.....	9
17	20.14 ROLLER TOWEL HOLDERS.....	9
18	20.15 MOP SERVICE BASINS.....	9
19	20.16 DRINKING FOUNTAINS.....	10
20	20.17 ACCESSORIES	10
21	20.18 SPARE PARTS AND INSTRUCTION MANUALS.....	14
22	20.19 TESTS, TRIALS AND INSPECTIONS	14
23	20.20 PHASE II TECHNICAL PROPOSAL REQUIREMENTS.....	15
24	20.21 PHASE III DETAIL DESIGN AND CONSTRUCTION REQUIREMENTS.....	15

20.1 REFERENCES

- (20A) UNITED STATES PUBLIC HEALTH SERVICE (USPHS) - *Handbook on Sanitation Of Vessel Construction*
- (20B) CENTER FOR DISEASE CONTROL (CDC) - *Recommended Shipbuilding Construction Guidelines for Cruise Vessels To Call on U.S. Ports*
- (20C) Code of Federal Regulations - 46 CFR Sub-chapter F

20.2 INTRODUCTION

This Section contains the Contractor Design and Provide general requirements for plumbing fixtures and accessories throughout the Vessel.

For WSF Fleet-wide Standardization purposes, End No. 1 of the Vessel shall always be considered the bow, and this designation shall delineate port and starboard, fore and aft wherever they are addressed in the Technical Specification.

20.3 GENERAL

All spaces shall be equipped with plumbing fixtures and accessories suitable for the intended purpose.

All sanitary fixtures and accessories shall be of heavy duty commercial or institutional quality.

Public Restrooms on the Passenger and Sun Decks shall be wheel chair accessible and meet all the requirements of the ADA. See the *AMERICANS WITH DISABILITIES ACT (ADA)* Subsection in Section 1B of the Technical Specification.

Sanitary fixtures and accessories shall be supplied as specified herein. Plumbing fixtures and accessories shall be marine type, and shall meet the requirements of References (20A), (20B), and (20C). Trim and accessories shall be chrome plated cast brass or stainless steel. Traps shall be adjustable, chrome plated brass, with clean out plugs.

Fixtures shall be complete with supply stops, valves, faucets, vents, drain fittings and hangers. The Contractor may substitute an equal item for fixtures and accessories specified. Specific attention is directed to the requirements of the Contract, *SCOPE OF WORK* Article for approval of "***or equal***" items. The Contractor shall assure that spares supplied to fulfill requirements in Section 86 of this Technical Specification for repair of components supplied under this Section are the correct parts for the components actually supplied.

Sinks, associated fixtures and accessories for the food preparation and serving areas are provided in Section 17 of the Technical Specification.

Privacy doors provided for water closet enclosures in the Passenger accommodation spaces shall be provided with tamperproof adjustable spring hinges installed to spring the door open. The thrust bearing, winding lug, groove pins, spring pin, tension pin, and spring shall be stainless steel.

Installations shall include flushometers, valves, faucets, traps, tailpieces, etc., as required. All flushometers shall have ground joint tail pieces.

Heavy items such as water closets, urinals and lavatories, where installed against joiner bulkheads or linings, shall be supported by independently attached and supported strength members behind the bulkhead panel.

Fastening of fixtures to the Vessel's structure shall be such as not to impair the tightness or integrity of the structure.

All piping shall be hidden behind the linings, or in sheet metal pipe chases painted to match the finish of the space.

All mirrors shall be minimum $\frac{1}{4}$ inch thick.

Each restroom shall be provided with electric hand dryers as set forth in **TABLE 20-2**.

20.4 WATER CLOSETS

All water closets Sun Deck and above shall be of vitreous china, water saver type, KOHLER Highcrest K-4302-C, ADA compliant, or equal. Water closets shall have elongated "WHITE" bowls, and shall be fitted with open fronted "WHITE" seats, without covers.

Generally, all water closets Passenger Deck and below shall be of vitreous china, water saver type, KOHLER Sifton K-4460-C, ADA compliant, or equal. In specific locations where a rear discharge water closet will not work, with approval of the WSF Representative in a "case-by-case" fashion, the abovementioned KOHLER Highcrest K-4302-C water closet may be substituted. All water closets shall have elongated "WHITE" bowls, and shall be fitted with open fronted "WHITE" seats, without covers.

Individual SLOAN Optima Systems 152-1.6 ES-S low consumption flushometers with Optima 1500-L self-adaptive infrared sensor, "YI" wall bumpers, and override switching yoke assembly, or equal, shall be provided on "rear spud" water closets. Individual SLOAN G2 Optima Plus 8111 SF low consumption flushometers with "YI" wall bumpers, or equal, shall be provided on "top spud" water closets. Easy access shall be provided to all flushometers for inspection and repair. Water closets and urinals in the public restrooms, Crew staterooms, EOS Restroom, and Sun Deck Unisex Restrooms are to auto flush.

Water closets may be either deck or bulkhead mounted. Their attachment shall be specifically reinforced to prevent damage or removal due to severe abuse. All units shall be mounted with a minimum of four (4) bolts each.

1 Every public restroom shall be outfitted with at least one (1) handicap accessible water
2 closet.

3 **20.5 EYE WASH CENTERS**

4 Eye wash centers shall be provided in the First Aid portion of the Purser's Office, Engine
5 Rooms, Engineer's Work Shop, Dayrooms, and Crew Shelter.

6 Provide a faucet mounted eyewash fixture on the Engineer's Dayroom faucet in lieu of the
7 above mentioned eye wash center.

8 **20.6 LAVATORIES**

9 **20.6.1 Passenger Areas**

10 Non- wheelchair accessible lavatories in public spaces shall be under counter mounted,
11 with grit drain, adjustable "P" trap (1¼ inch) with clean out and waste to wall as set forth
12 in Section 19 of the Technical Specification. Color: to be determined by Contractor's
13 approved design. Counters and vanities in these spaces shall be provided as set forth in
14 Section 19 of the Technical Specification.

15 Wheelchair accessible lavatories shall be bulkhead mounted CRANE 1H-364-V, or
16 equal, vitreous china, grit drain, 8-5260 adjustable 'P' trap (1¼ inch) with clean out and
17 waste to wall. Color: "WHITE". Lavatory shall be installed with a clearance of
18 approximately 26½ inches under the sink with the sink top approximately 31 inches
19 above the finished deck. Faucets provided for handicap accessible lavatories shall satisfy
20 ADA requirements.

21 Faucets shall have brushed stainless or chrome finish and have brass bodies, renewable
22 seats and aerators with 2.5 gpm flow restrictors.

23 Faucets shall be TECHNICAL CONCEPTS AutoFaucets® using Surround Sensor
24 Technology, TC #401818, or equal, no touch control electronic facet with sensor and
25 spout. Handicap lavatory faucets shall be TECHNICAL CONCEPTS AutoFaucets®
26 using Surround Sensor Technology, TC #500484, or equal, no touch control electronic
27 facet with sensor and spout of an ADA approved type. All faucets shall have mixing
28 valve and be powered by an AC adapter, TC #490071, or equal. Passenger lavatories
29 shall be provided with a strainer only.

30 Each lavatory shall be provided with a TECHNICAL CONCEPTS OneShot® Automatic
31 Soap System, TC #401310, or equal, and powered by an AC adapter, TC #490071, or
32 equal. Provide two (2) (1 installed, 1 spare) TC #401543 soap refills with each dispenser.

1 Continuous mirrors shall be provided above all non-handicap accessible lavatories. The
2 mirrors above handicap accessible lavatories shall be tilted (see **TABLE 20-2**) so that a
3 person in a wheelchair can use it.

4 **20.6.2 Crew Areas**

5 Lavatories in the Ship's Office Restroom, Officer and Crew Staterooms, and the Deck
6 Crew Restrooms shall be under counter mounted, with adjustable "P" trap (1¼ inch) with
7 clean out and waste to wall as set forth in Section 19 of the Technical Specification.
8 Color: to be determined by Contractor's approved design. Vanities in these spaces shall
9 be provided as set forth in Section 19 of the Technical Specification.

10 Faucets shall have brushed stainless finish and have brass bodies, single lever, renewable
11 seats and aerators with 2.5 gpm flow restrictors.

12 Mirrors shall be provided above all lavatories. See **TABLE 20-2** of this Section.

13 A pop-up drain shall be provided for each Crew lavatory.

14 **20.7 URINALS**

15 Urinals shall be provided in the Men's Restroom on the Passenger Deck. One (1) trough
16 type urinal shall be a stainless steel 60 inch JUST INSTITUTIONAL GROUP B-36033-60,
17 or equal, with chrome plated cast brass beehive strainer. One (1) vitreous china, wheelchair
18 accessible, "WHITE", individual ADA urinal CRANE Manhattan Model 7307, or equal.
19 The ADA urinal shall be mounted next to the trough urinal at ADA seventeen (17) inch
20 height.

21 The ADA urinal shall be provided with SLOAN Optima Systems 195-1.0 ES-S, or equal,
22 low consumption flushometer. Easy access shall be provided to all flushometers for
23 inspection and repair. An Optima EL-1500-L self-adaptive infrared sensor, and override
24 switching yoke assembly, or equal, shall be provide for the ADA urinal.

25 For WSF Fleet-wide Standardization purposes, the trough urinal shall be provided with
26 urinal flush water via an automatic timer and solenoid operated flushing valve for the
27 Passenger Deck Men's Restroom. The automatic controls shall be located in an readily
28 accessible area inside the pipe chase between the Men's and Women's Restrooms. For
29 typical design and installation, see WSF Drawings No. 5684-092-01 and No. 5684-059-05.
30 These units shall be designed and constructed to include the following:

- 31 1. Automatic timer assembly, STALHUN RS806HLL.
- 32 2. Timer assembly relay base, GOULD SL711, eleven pin.
- 33 3. Relay, EAGLE SIGNAL (Miniflex) DA 1616A3 120 Vac/Vdc 10 ampere, time 0-4
34 minute, ON/OFF, OFF/ON.
- 35 4. Enclosure, STALHUN.

- 1 5. Solenoid valve, ASCO #8210D2, 50/60 Hz., 120 Vac, 1/2 inch NPT, water 5-135 psig.
2 6. Vacuum breaker, WATTS REGULATOR, No. 288A, 1/2 inch NPT.
3 Easy access shall be provided to all flushometers for inspection and repair.

4 **20.8 SHOWER STALLS**

5 Stateroom shower stalls shall be provided for the Master and the Staff Chief Engineer.
6 Additional showers are to be provided for Officer (one (1) shower room, Crew
7 accommodation block, End No. 1, as defined in the *GENERAL* Subsection in Section 12 of
8 the Technical Specification) and Crew (two (2) shower rooms, Crew accommodation block,
9 End No. 2) general usage. See the *BENCHES* Subsection in Section 19 of the Technical
10 Specification. See **TABLE 6-1** in Section 6 of the Technical Specification for shower base
11 treatments.

12 Shower enclosures shall be constructed of 16 USSG Type 316 stainless steel sheet metal,
13 suitably reinforced. The enclosure shall be either: **1).** seamless, **2).** panels joined with
14 continuous full penetration welds, or **3).** panels assembled with a joint design approved by
15 the WSF Representative. If shower enclosures are welded, the shower-side surface of the
16 weld shall be ground smooth and polished to minimize visibility of the weld. The over head
17 and bulkheads above the shower shall be lined with Type 316 stainless steel. Shower stall
18 shall be fitted with a soap dish and 12 inch × 4 inch shelf under the shower head.

19 Shower doors and control valves shall be as set forth in **TABLE 20-2**.

20 **20.9 TOILET STALL PARTITIONS**

21 Toilet stall partitions and urinal screen shall be provided in all Passenger Restrooms between
22 all water closets and urinals.

23 See the *Toilet Stall Partitions* Subsection in Section 19 of the Technical Specification for
24 additional partition requirements.

25 Partitions shall be ACCURATE PARTITIONS CORP., or equal, floor to ceiling anchored,
26 constructed of Type 304 or better stainless steel, with powder coated finish, and include
27 complete hardware. All bulkhead brackets and hardware shall be of substantial build,
28 stainless steel secured through the surface to reinforcing plates with tamperproof stainless
29 steel screws and ADA paddle handles. Partitions shall be heavy duty and readily removable
30 for cleaning and maintenance.

31 Doors and divisional panels shall be flush type, consisting of two (2) sheets of 18 USSG
32 stainless steel with edges formed at right angles. The doors and panels shall be cemented
33 under pressure to a core of honeycomb.

34 Doors and divisional panels shall be approximately 58 inches high and mounted 12 inches
35 above the finished deck.

1 Doors shall be hung on mullions that are permanently attached to the deck above and to the
2 deck below for stability. The mullions shall be constructed in a similar manner to the door
3 panels and shall be 4 inches or more in width by 1¼ inches thick.

4 The door hardware shall be such that the door does not swing and bang open and closed in
5 any seaway. Bumper and heavy duty spring or spring loaded latches shall be provided to
6 keep the doors closed at all times.

7 A modesty screen shall be provided between the trough urinal and the ADA urinal in the
8 Men's Restroom. The modesty screen shall be similar in construction to the stall partitions
9 and , floor to ceiling anchored. They shall be bulkhead mounted with deck to overhead
10 stainless steel pipe support and be sized approximately 18 inches deep × 42 inches high.

11 All partition anchors to the deck shall be accomplished using 1½ IPS, Type 316 stainless
12 steel pipe secured to the steel deck up to and anchored through a flange plate to the pilaster
13 bolts inside the bottom stainless steel pilaster shoe. Finished pipe support installation shall
14 be a buffed bright finish. The intent of the pipe installation is to provide unhindered access
15 around the pilaster at the deck level for deck mopping.

16 **20.10 BABY CHANGING STATION**

17 A baby changing station shall be provided in each Passenger Restroom. For WSF Fleet-
18 wide Standardization purposes, the changing station shall be a fold down model, 22 inches
19 wide × 36 inches tall × 5 inches deep, JBJ INDUSTRIES – Koala Bear Kare Baby Changing
20 Station. In addition, a child seat, 12 inches wide × 19 inches tall × 5¾ inches deep, JBJ
21 INDUSTRIES – Koala Bear Kare Child Protection Seat shall be provided in each Passenger
22 accessible restroom.

23 **20.11 SHARPS DISPOSAL CONTAINERS**

24 For WSF Standardization purposes provide a SAGE, Model 8516-1H, five (5) quart sharps
25 container wall cabinet as set forth in **TABLE 20-1** below:

TABLE 20-1	
Sharps Disposal Container Locations	
Space	Qty
One (1) Office's Lav space in the Crew accommodation block on the Sun Deck	1
One (1) Crew's Lav space in the Crew accommodation block on the Sun Deck	1
Unisex Restroom, Sun Deck, End No. 1	1
Unisex Restroom, Sun Deck, End No. 2	1
Unisex Restroom, Passenger Deck, End No. 1	1
Passenger Deck Men's Restroom	1
Passenger Deck Women's Restroom	1
First Aid Area in the Purser's Office	1
Crew (Engineer's) Restroom, Lower Vehicle Deck	1
Engineer's Restroom	1

1 **20.12 SERVICE SINKS AND SERVICE CONNECTIONS**

2 Two (2) service sinks with faucets shall be provided in the machinery space areas below the
3 Lower Vehicle Deck as directed by the WSF Representative (one (1) in Tank Room No. 1
4 (with workbench provided in Section 80 of the Technical Specification) and one (1) in the
5 Engineer's Stores area, port side). See Section 11 of the Technical Specification for Lift

Station that support these installations. Service sinks shall be acid resisting enameled cast iron, plain un-drilled back, stainless steel strainer, stainless steel or chrome plated sheet brass rim guard on three sides, size 24 $\frac{1}{4}$ " \times 20 $\frac{1}{4}$ ", 3-inch trap with cleanout and adjustable floor mounting flange of cast iron construction KOHLER "Bannon" K-6719, or equal. Faucets shall have brass bodies, renewable seats, center spout outlet and brass lever handles, integral stops, top brace, long spout with hose threads KOHLER K8907, or equal. Spouts shall be formed with a bucket hook and be provided with a vacuum breaker. Sinks shall be provided with a 3 foot long hose, with female hose end on one end, which will mate with faucet.

Freeze-proof freshwater hose bibs, with approved vacuum breaker, shall be located at each Rescue Boat Station for flushing the outboard motors. Freeze-proof freshwater hose bibs, with approved vacuum breaker, shall be located throughout the Vessel for easy deck and bulkhead wash downs. For bidding purposes, see Section 59 of the Technical Specification for hose bibb quantities.

20.13 DAY ROOM / SHELTER SINKS

One (1) sink shall be provided in the Deck Crew Shelter. Sink shall be an ELKAY Lustertone Model DLR-172210, or equal, 3 Faucet holes, stainless steel sink.

Provide one (1) sink each in the Sun Deck Day Room and the Passenger Deck Day Room. Sinks shall be ELKAY Lustertone Model ILR-4822-L, or equal, stainless steel double sink.

One (1) sink shall be provided in the Engineer' Day Room. Sink shall be an ELKAY Lustertone Model ILR-4822-R, or equal, stainless steel double sink.

All Day Rooms and Deck Crew Shelter sinks shall be provided with an ELKAY Single Lever, Model LK-4100, or equal, faucet, and ELKAY Model LK-99, or equal, outlet drain.

20.14 ROLLER TOWEL HOLDERS

WSF will furnish, as Owner Furnished Equipment (OFE), two (2) Roller Towel Holders for below the Lower Vehicle Deck. The Contractor shall provide location for and installation of one (1) holder near the Engineer's Service sink and one (1) holder in the Engineer's Restroom as directed by the WSF Representative.

20.15 MOP SERVICE BASINS

Mop Service basins with accessories and faucets shall be provided in all Cleaning Gear Lockers, Lower Vehicle Deck and above. Basins shall be CRANE PLUMBING Fiat Products MSB 2424 with stainless steel drain body, or equal, to include #1453-BB - alternate strainer, #832-AA – hose and bracket, and #889-CC – mop bracket, and #830-AA – service faucet.

Mop Service basin installations shall include stainless steel wall guards up all bulkheads above the top of the basin a minimum of twenty-four (24) inches.

20.16 DRINKING FOUNTAINS

Two (2) bulkhead mounted ELKAY Barrier Free, Dual Water Cooler, Model EBFATL-8, or equal, stainless steel, bi-level drinking fountains, fitted with anti-squirt bubblers and anti-splash ridges shall be provided, one (1) in each End of the Passenger Deck. The drinking fountains shall meet the requirements of ADA Standard A4.15.

The upper bubbler shall be approximately forty-two (42) inches and the lower unit approximately thirty-one (31) inches above the finished deck and be suitable for use by children and wheelchair occupants.

One (1) bulkhead mounted, stainless steel, single level drinking fountain ELKAY Water Cooler, Model EFHA-8, or equal, fitted with anti-squirt bubblers and anti-splash ridges shall be provided for the Engineering staff in the Work Shop area or Engineer's Dayroom, as approved by WSF during Phase II Design work.

20.17 ACCESSORIES

Heavy duty commercial or institutional stainless steel accessories shall be designed and provided in the Men's and Women's Restrooms, Ship's Office Restroom, Crew Heads, Crew Showers,, and in the Officer and Crew Staterooms, as shown in **TABLE 20-2**, to include Sanitary Accessories, and as otherwise appropriate and/or required.

To set a standard of quality for bidding purposes, WSF has included **TABLE 20-2** to amplify the required level of quality for accessory items not covered above in specific Subsections.

TABLE 20-2													
Application Requirements and Salient Feature for or equals													
Fixtures & Accessories	Description	Minimum Quantities (Each Space of Classification Noted)											
		Master's & Staff Chief Engineer's Staterooms	Stateroom	Ship's Office	Crew/Officer Restroom	Crew/Officer Shower	Sun Deck Dayroom	Unisex Restroom	Men's Restroom	Women's Restroom	Pass Deck Dayroom	Deck Crew Shelter	Engineer's Rstrm/Shower
Shower	See the <i>SHOWER STALLS</i> Subsection above	1				1							1
Shower Control Valve	CHICAGO FAUCET Co. #1762 Shower Control Valve & Head	1				1							1
Shower Grab Bar 14"	BOBRICK B-6206×14	1				1							1
Shower Door	Tempered, wire inserted, frosted glass with magnetic catch, stainless steel hinges and trim	1				1							1
Soap Dish	BOBRICK B-680 stainless steel	1	1	1		1							2
Soap Dispenser, Liquid	SLOAN ESD-200	1		1	1		1	1	6	8	1		1
Towel Bar 18" w/Shelf	BOBRICK B-676 stainless steel	1	1			1	1				2	1	2
Robe Hook	BOBRICK B-672 stainless steel	1	1			2							2
Toilet Paper Dispenser	SCOTT Jumbo, single roll, stainless steel	1		1	1			1	7	12			1

TABLE 20-2, cont'd													
Application Requirements and Salient Feature for or equals													
Fixtures & Accessories	Description	Minimum Quantities (Each Space of Classification Noted)											
		Master's & Staff Chief Engineer's Staterooms	Stateroom	Ship's Office Restroom	Crew/Officer Restroom	Crew/Officer Shower	Sun Deck Dayroom	Unisex Restroom	Men's Restroom	Women's Restroom	Pass Deck Dayroom	Deck Crew Shelter	Engineer's Rstrm/Shower
Water Closet	See the <i>WATER CLOSET</i> Subsection above	1		1	1			1	7	12			1
Toilet Seat Cover Dispenser	BOBRICK B-221 stainless steel	1		1	1			1	7	12			1
Trough Urinal	See the <i>URINALS</i> Subsection above								1				
Urinal	See the <i>URINALS</i> Subsection above								1				
Lavatories	See the <i>LAVATORIES</i> Subsection above	1	1	1	1			1	6	10			1
Medicine Cabinet	BOBRICK B-398 or B-299 stainless steel Mirror 17"×26 ⁵ / ₈ ", w/adj. shelves	1											2
Electric Hand Dryer	SLOAN Optima Model EHD-502. Color: WHITE.							1	3	3			
Mirror/Shelf	BOBRICK B-292 1620 stainless steel, 16" w.×20" h., integral self 5" deep		1	1	1	1							
Hook Strip	BOBRICK B-232 × 24 stainless steel						1				1	2	1

TABLE 20-2, cont'd													
Application Requirements and Salient Feature for or equals													
Fixtures & Accessories	Description	Minimum Quantities											
		(Each Space of Classification Noted)											
		Master's & Staff Chief Engineer's Staterooms	Stateroom	Ship's Office Restroom	Crew/Officer Restroom	Crew/Officer Shower	Sun Deck Dayroom	Unisex Restroom	Men's Restroom	Women's Restroom	Pass Deck Dayroom	Deck Crew Shelter	Engineer's Rstrm/Shower
Utility Shelf, mounted to toilet partition	BOBRICK B-287 Folding Shelf, 14 ¹ / ₂ "×5 ³ / ₄ "								7	12			
Sanitary Napkin Disposal	BOBRICK B-254 stainless steel	1		1	1			1		12			1
Folding Utility Shelf	BOBRICK B-287 stainless steel			1	1			1		12			
Grab Bar 36"×54", Handicapped	BOBRICK B-6237 stainless steel							1	1	1			
Surface mount Sanitary Dispenser	BOBRICK B-282-25 stainless steel							1		1			
Coat Hook	BOBRICK B-682 aluminum			1									2
Toilet Grab Bar, 12"	BOBRICK B-6206 12 stainless steel								7	12			
Hook & Bumper	BOBRICK B-212 aluminum	1	1	1	1	1	1					1	1
Waste Receptacle	BOBRICK B-2280 stainless steel, 21 gallon, Open Top							1	2	2			1

TABLE 20-2, cont'd													
Application Requirements and Salient Feature for or equals													
Fixtures & Accessories	Description	Minimum Quantities											
		(Each Space of Classification Noted)											
		Master's & Staff Chief Engineer's Staterooms	Stateroom	Ship's Office Restroom	Crew/Officer Restroom	Crew/Officer Shower	Sun Deck Dayroom	Unisex Restroom	Men's Restroom	Women's Restroom	Pass Deck Dayroom	Deck Crew Shelter	Engineer's Rstrm/Shower
Mirror, 30" high. Full Length of Lavatory Counter	Minimum 1/4 inch thick								1	1			
Mirror, 18"×30", Tilt	BOBRICK B-293 1830 stainless steel							1	1	1			
Paper Towel Dispenser, 400 single fold	BOBRICK B-263 stainless steel	1	1	1	1		1				1	1	3 ##

##Note: The second and third paper towel dispensers called out for the Engineer's Restroom/Shower shall be installed as directed by the WSF Representative near the Engineer's Storeroom Service sink and in the Engineer's Dayroom.

1 **20.18 SPARE PARTS AND INSTRUCTION MANUALS**

2 Provide a list of recommended spare parts and special tools, for those items which are
3 Contractor furnished, together with parts lists and instruction manuals necessary to maintain
4 and service provided equipment and accessories in accordance with the requirements of
5 Sections 86 and 100 of the Technical Specification.

6 **20.19 TESTS, TRIALS AND INSPECTIONS**

7 Tests and/or trials shall be in accordance with this Section and Section 101 of the Technical
8 Specification.

1 Inspections shall be performed as defined in this Section and Sections 1 and 2 of the
2 Technical Specification.

3 **20.20 PHASE II TECHNICAL PROPOSAL REQUIREMENTS**

4 Considering the importance of the aesthetic appeal of the surroundings in public spaces and
5 the subjectivity of determining the aesthetic appeal of plumbing fixtures and accessories
6 which other wise meet all requirements addressed herein, WSF reserves the right to approve
7 the selection of all plumbing fixtures and accessories. The Contractor shall routinely consult
8 with the WSF Representative regarding the selection of plumbing fixtures and accessories
9 meeting these requirements throughout the design process to ensure that the final selection of
10 items will subsequently meet with WSF approval.

11 The following sample documentation, in addition to other deliverables required by Section
12 100 of the Technical Specification and the Authoritative Agencies, shall be provided during
13 the Phase II Technical Proposal stage of Work in accordance with the requirements of
14 Section 100 of this Technical Specification:

15 **A. Fixture Samples**

16 *Fixture Samples* shall be representative of all fixture types to be provided. Catalog
17 specification sheets including quality and weight information, and operation and installation
18 instructions (if applicable), shall be provided at the time of submittal of the samples.

19 See Section 100 of the Technical Specification for additional requirements regarding
20 technical documentation.

21 **20.21 PHASE III DETAIL DESIGN AND CONSTRUCTION REQUIREMENTS**

22 The deliverables required by Section 100 of the Technical Specification and the
23 Authoritative Agencies, shall be submitted during the Phase III Detail Design stage of Work
24 in accordance with the requirements of Section 100 of the Technical Specification.

25 The sanitary spaces arrangements and details drawings shall include construction details of
26 counters and shower stalls.

27 See Section 100 of the Technical Specification for additional requirements regarding
28 technical documentation.

(END OF SECTION)